

AMENDMENTS TO THE SPECIFICATION

Page 6, at line 3, insert the paragraph as follows:

Figure 1 illustrates a catellated electrode of the prior art.

Page 6, at lines 20-21, amend the paragraph as follows:

~~Figure 7 illustrates~~ Figures 7A and 7B illustrate  
an alternative arrangement of serpentine TWD electrodes;

Page 21, line 37, to page 22, line 5, amend the bridging paragraph as follows:

For example, particles may be introduced as indicated by the arrow [[I]] i. Particles of differing properties will travel different distances along the array of electrodes 44, and reside in different positions. These particles may then be removed along channels 'a' through 'h' by the electrodes 46.

Page 22, at lines 20-31, amend the paragraph as follows:

All examples described above with reference to Figures 2 to 8 relate to travelling wave dielectrophoresis, although the electrode arrays may also be used to apply

static DEP fields. Referring now to Figure 9, a set of serpentine electrodes suitable for static dielectrophoresis is shown. The electrodes 48 are "V" shaped and arranged in parallel pairs with the inter-electrode gap  $[[E]]_e$  being substantially greater than the inter-pair gap  $[[P]]_p$ . Each electrode in a pair projects on one side beyond the other electrode in that pair to facilitate connection to electrical connectors 50, 52 connected to opposite sides of a signal source 54.

Page 22, line 33 to page 23, line 10, amend the bridging paragraph as follows:

Typically the electrodes 48 and connectors 50, 52 will be fabricated on a glass slide by photolithography, with the electrodes 48 being gold electrodes nominally 40 microns thick with an inter-electrode gap  $[[E]]_e$  also nominally 40 microns. Inter-pair gap  $[[P]]_p$  is nominally 200–1000  $\mu\text{m}$ . The slide carrying the electrodes will typically be formed into a cell with a spacer and a cover as in Figure 2, the chamber height being between 50 and 300 microns. However, for static dielectrophoresis, as is well known, a flow system must be provided by particle suspension to cause movement as indicated by the arrow in Figure 9A.

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Such a flow system may be a mechanical system or flow may be caused by the well-known electrohydrodynamic effect on applying an appropriate electrical signal to the electrode array.